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Sampling within the Portland Harbor Superfund Site

Focus: Cathedral Park Project Area

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Takeaways

By the end of this presentation, we hope that Collaborative members and observers will better understand:

- ✓ The roles of the Oregon Department of Environmental Quality (DEQ) and EPA in sampling within the Portland Harbor Superfund Site
- ✓ Where are we in the sampling process Site-Wide and for the Cathedral Park Project Area?
- ✓ Why sampling is so important right now
- ✓ The typical sampling and analysis process with a focus on the Cathedral Park Project Area
- ✓ How interested community members can be involved in EPA's *initial* sampling work at the Cathedral Park Project Area

Role of Oregon Department of Environmental Quality (DEQ)

- DEQ is **not directly involved** with in-water sampling for the Portland Harbor Superfund Site (that is EPA's role)
- DEQ **does** evaluate and provide input on the sampling plans and results of in-water sampling work overseen by EPA
- DEQ is the lead agency overseeing upland sampling (soil, groundwater, stormwater) to evaluate and address sources of contamination to the river (known as source control evaluations)



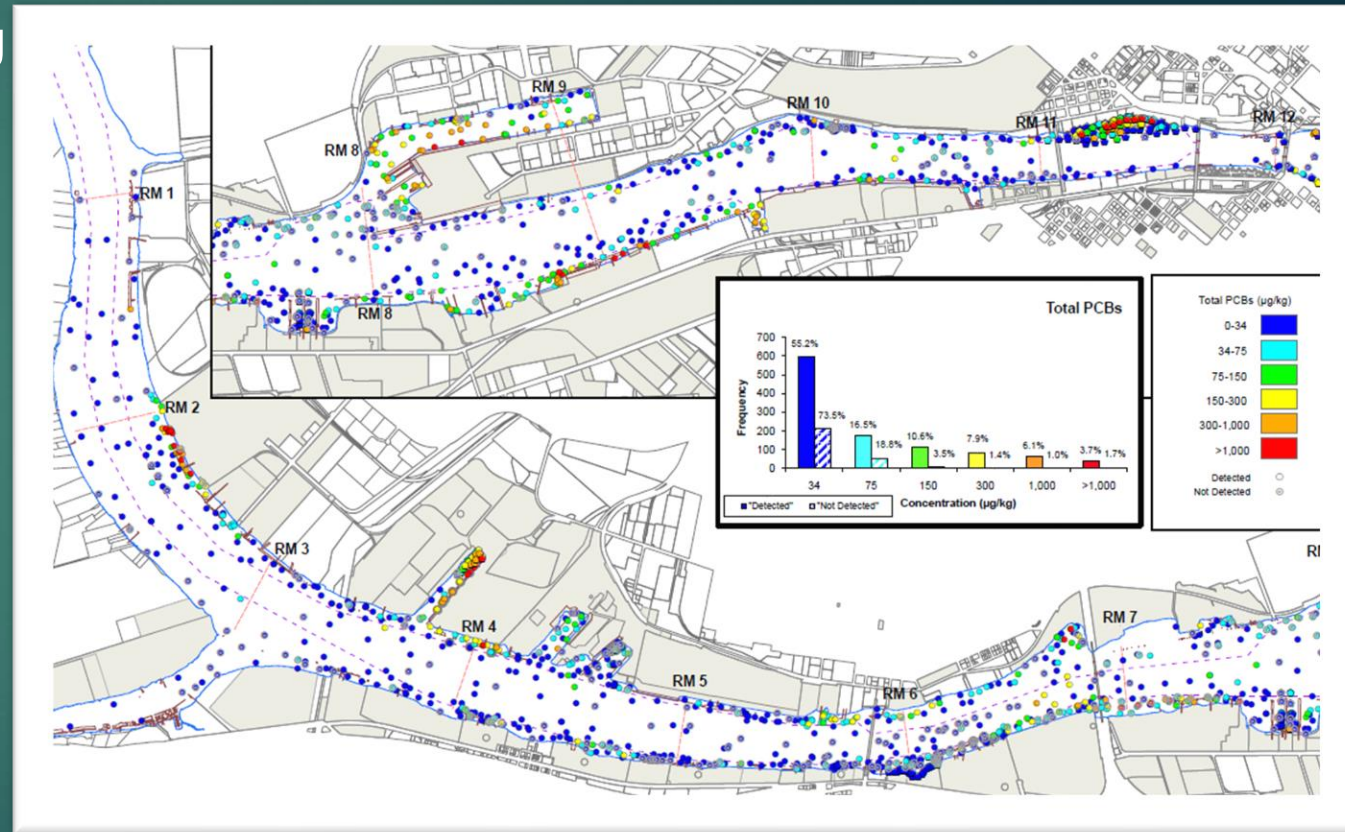
State of Oregon

Department of Environmental Quality

Where are we in the sampling process

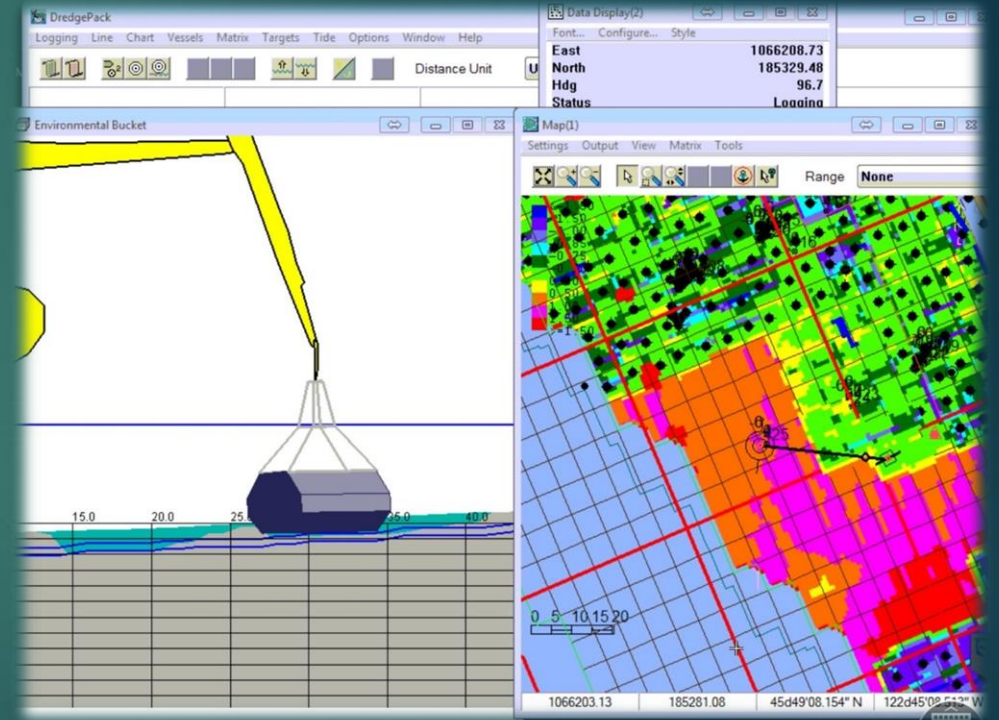
Site-wide?

- ▶ **Past (2000 – 2016):** Extensive sampling occurred to help EPA get a good overall idea of which chemicals were present and where contamination existed
- ▶ **Present:** Now EPA is working to refine the area requiring active cleanup and to select the best cleanup technology

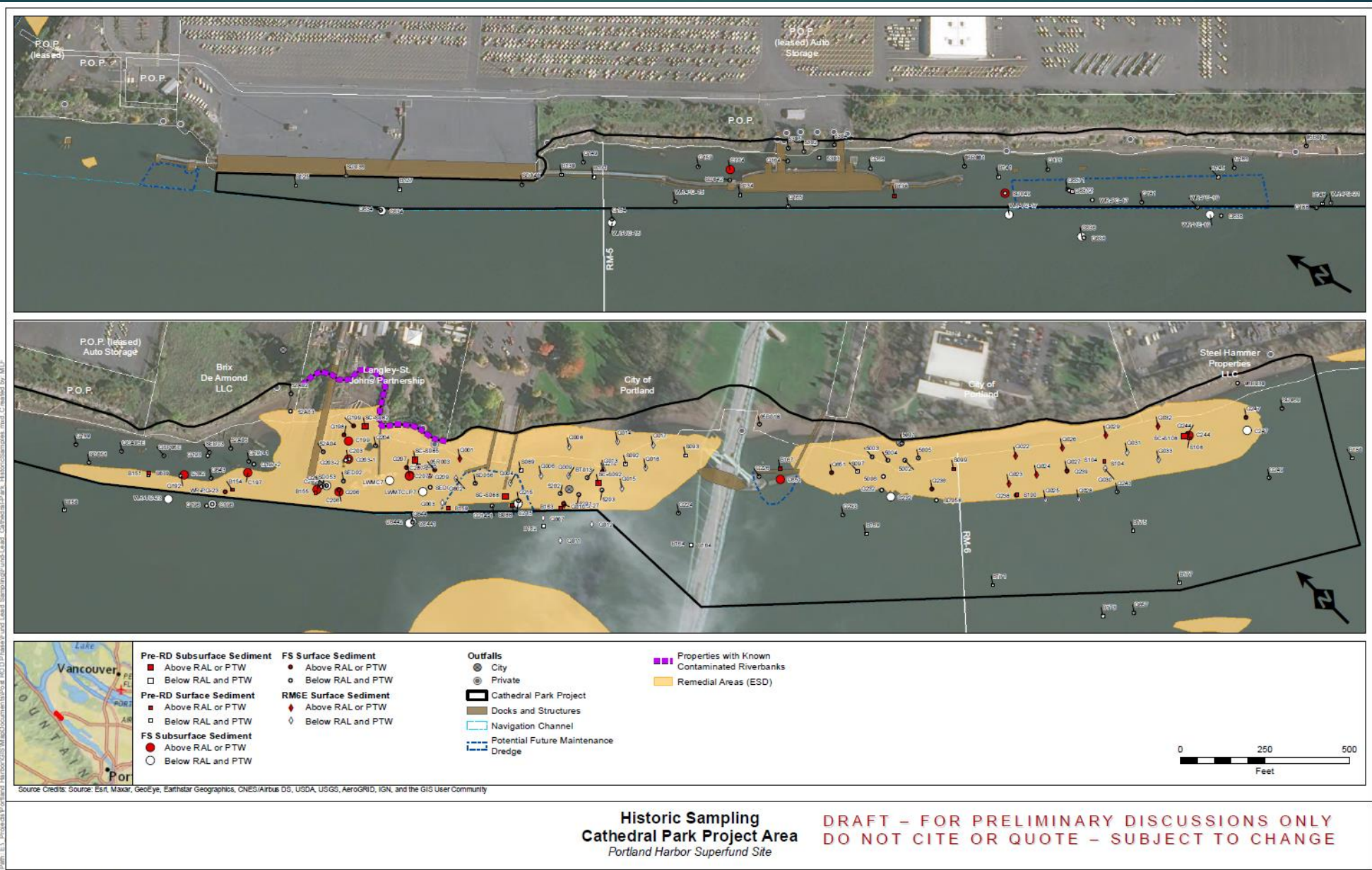


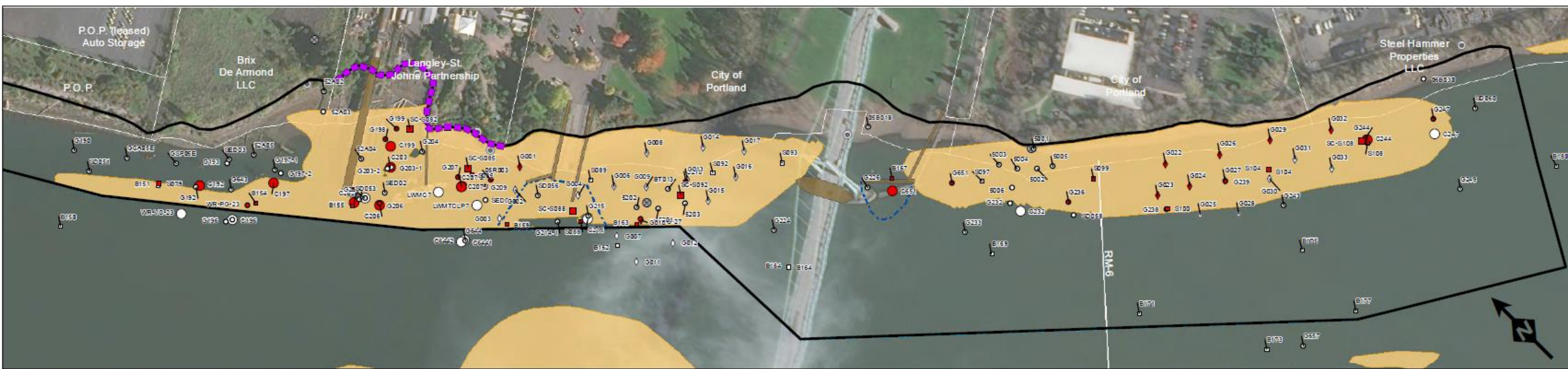
From Lower Willamette Group Remedial Investigation Report

Why is sampling important right now?



Cathedral Park Project Area





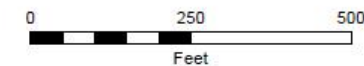
Pre-RD Subsurface Sediment
 ■ Above RAL or PTW
 □ Below RAL and PTW
Pre-RD Surface Sediment
 ■ Above RAL or PTW
 □ Below RAL and PTW
FS Subsurface Sediment
 ● Above RAL or PTW
 ○ Below RAL and PTW

FS Surface Sediment
 ● Above RAL or PTW
 ○ Below RAL and PTW
RM6E Surface Sediment
 ◆ Above RAL or PTW
 ◇ Below RAL and PTW

Outfalls
 ● City
 ○ Private
 ■ Cathedral Park Project
 ■ Docks and Structures
 ■ Navigation Channel
 ■ Potential Future Maintenance Dredge

■ Properties with Known Contaminated Riverbanks
 ■ Remedial Areas (ESD)

Data Gaps:
 Subsurface extents
 1' intervals
 ROD Riverbank



Historic Sampling
Cathedral Park Project Area
 Portland Harbor Superfund Site

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DO NOT CITE OR QUOTE – SUBJECT TO CHANGE

Source Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

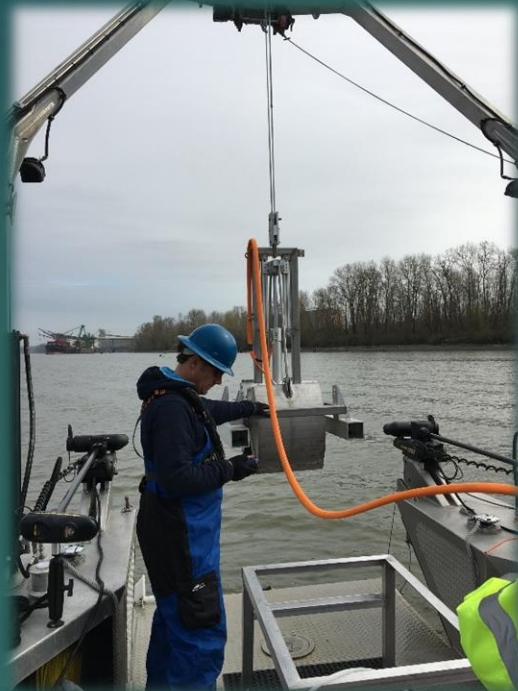
Sediment Sampling Equipment

Images courtesy of
CDM Smith

Core Tube



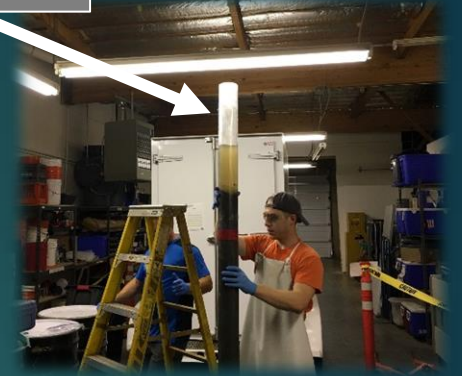
Hand Auger
Photograph from USEPA Soil
Sampling SOP



Surface Grab Sampler



Vibracore Sampler



Intact Surface
Sample

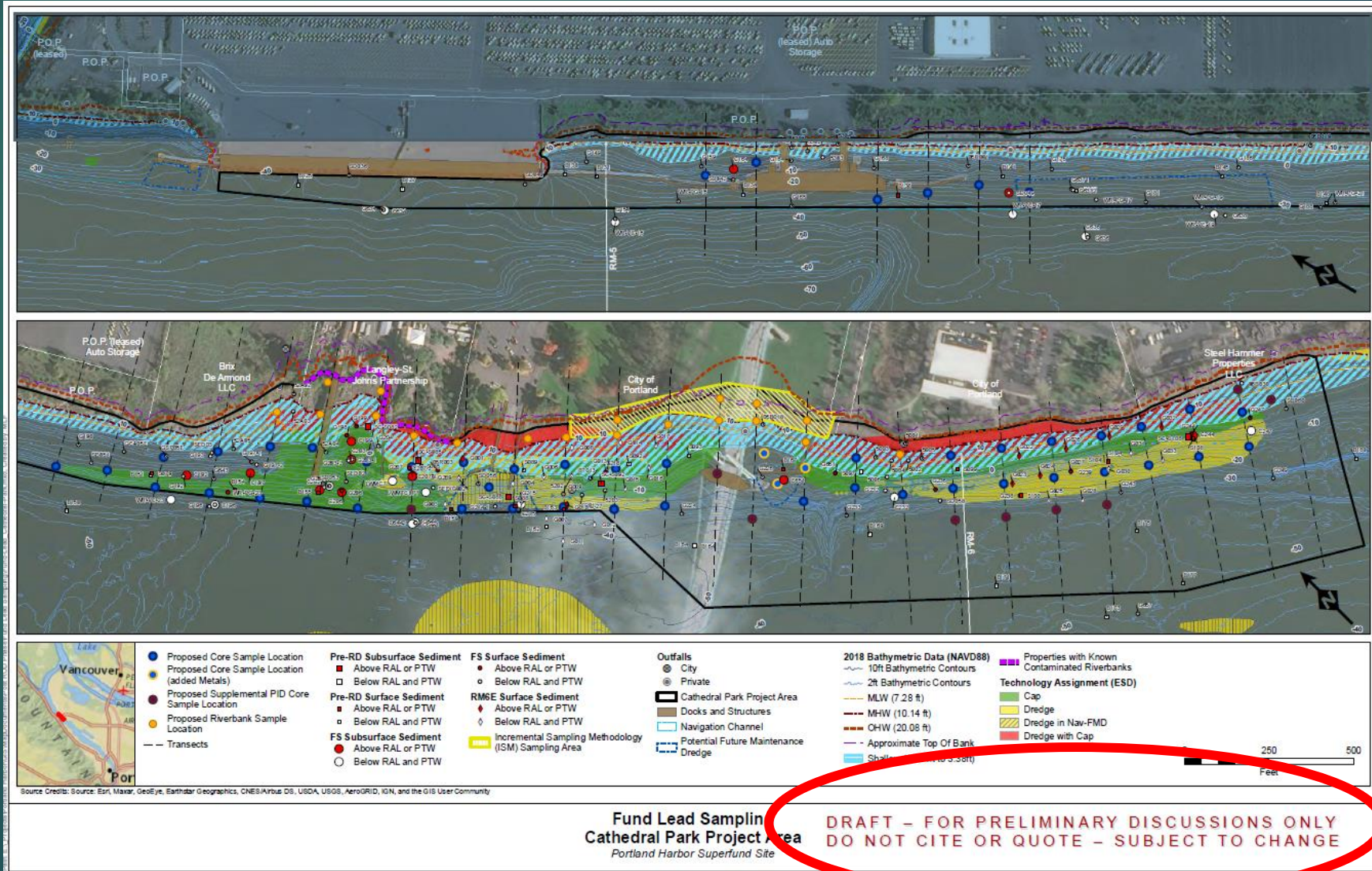


Core Processing

Cathedral Park Focus: What is the sampling process?

★ Sampling Plan in development

- ▶ Proposed location for samples
- ▶ Time of year samples will be taken
- ▶ **Actual collection of samples** (field work):
First phase planned for June 2021



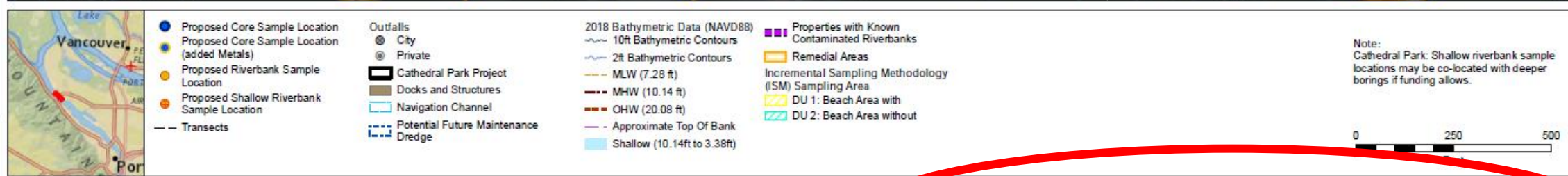
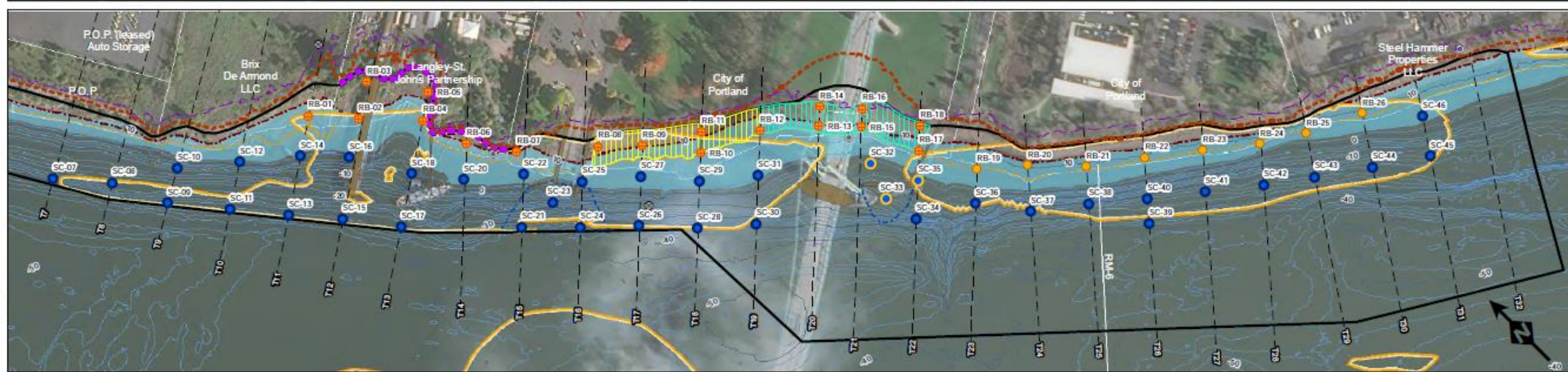
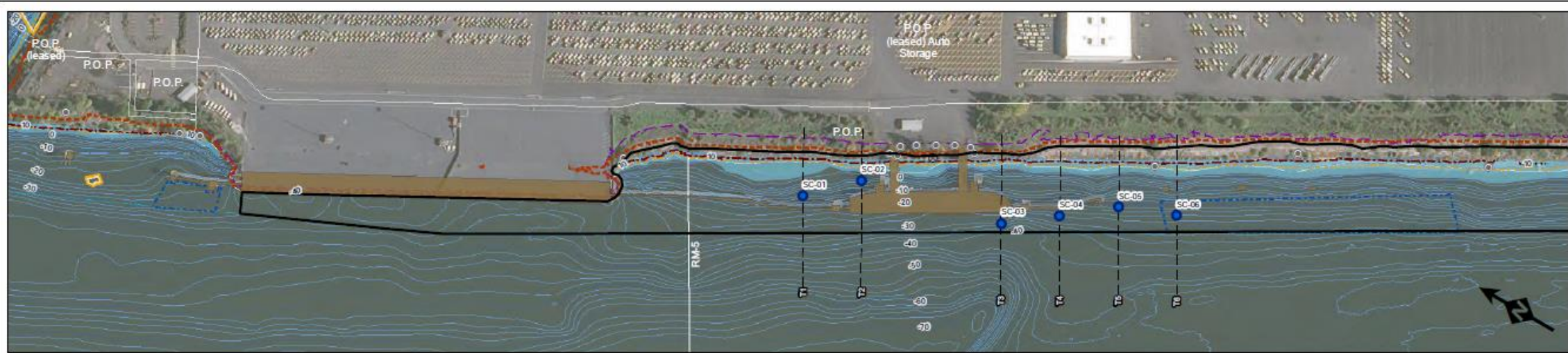
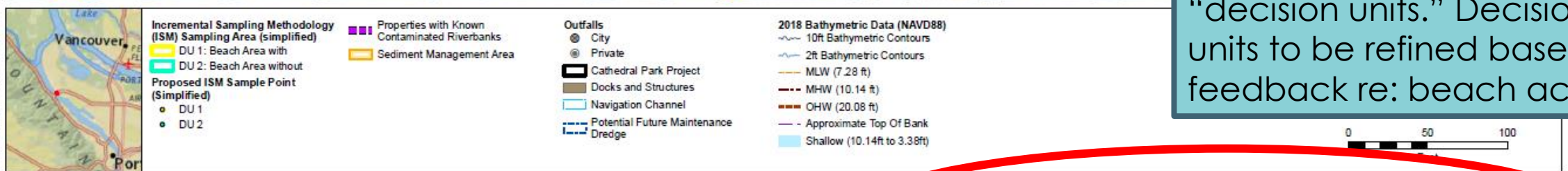
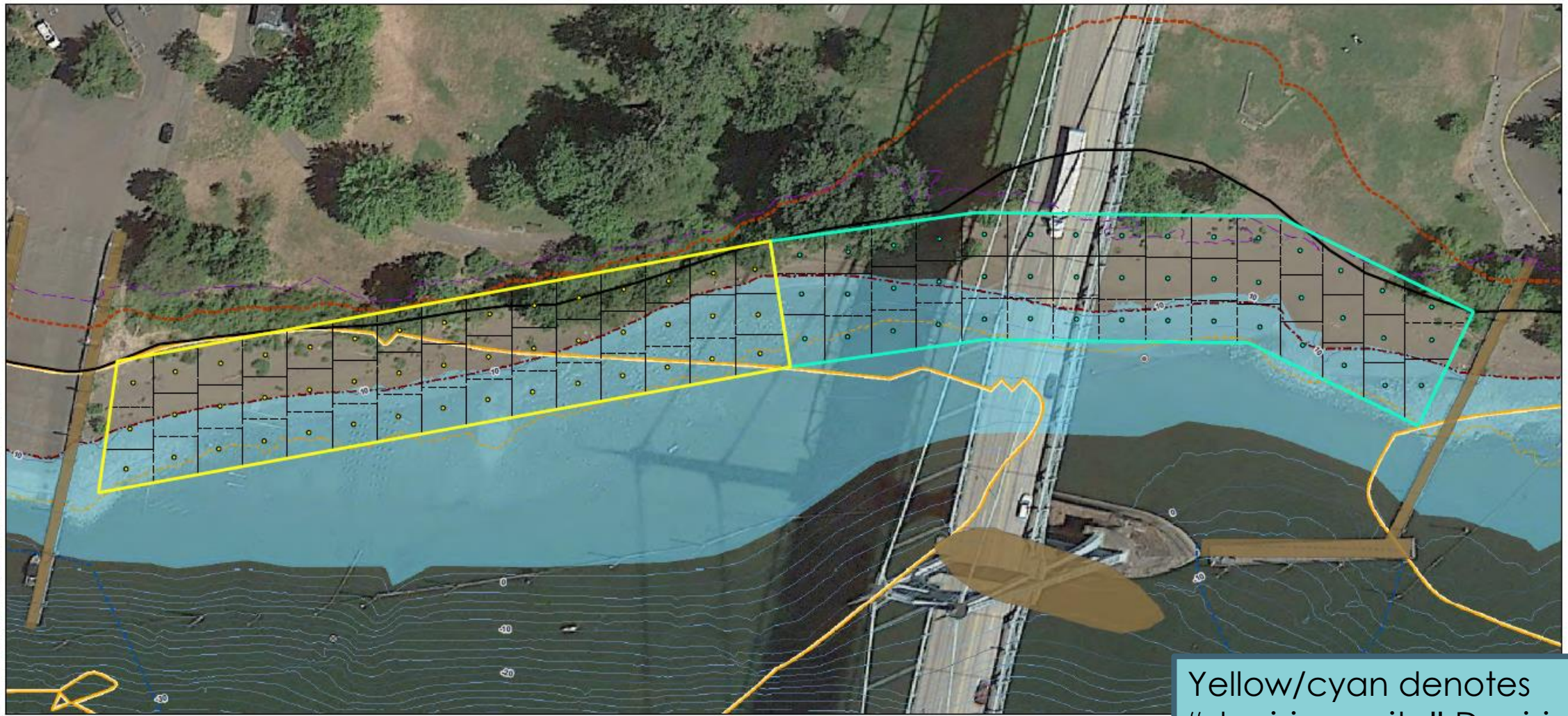


Figure 2. Fund Lead Sampling
Cathedral Park Project Area
Portland Harbor Superfund Site

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Yellow/cyan denotes "decision units." Decision units to be refined based on feedback re: beach activity.

Figure 3. Fund Lead Sampling Cathedral Park Project Area
Portland Harbor Superfund Site

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Analysis

- ▶ Submittal to Laboratory
- ▶ Quality Assurance/Quality Control
- ▶ Data Quality Review
- ▶ Data Use



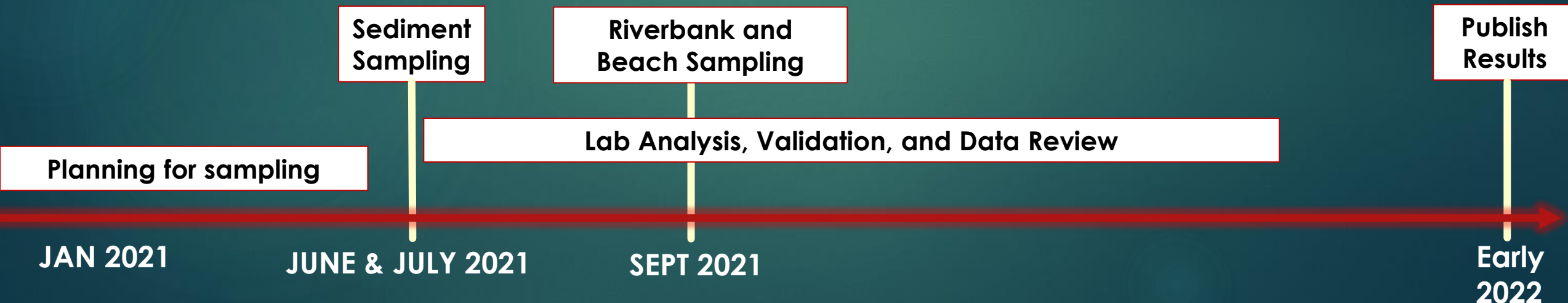
Photograph
courtesy of CDM Smith

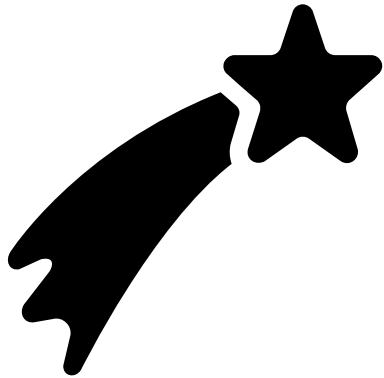
Interested in the Cathedral Park Project Area?

Consider joining the Cathedral Park Project Area Working Group!

- **Purpose:** Discuss and develop community education and engagement opportunities for EPA's *initial* sampling work at the Cathedral Park Project Area (planned to start in June 2021)
- **Join Us!** Please contact Laura Knudsen (knudsen.laura@epa.gov, 206-643-4299) if you are interested in joining!

Very Tentative Timeline (for Cathedral Park Project Area)





Questions?

Thank You!